

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 15714

Title: Fluid resuscitation in acute pancreatitis: normal saline or lactated Ringer's solution?

Reviewer's code: 00947129

Reviewer's country: Hungary

Science editor: Jing Yu

Date sent for review: 2014-12-05 19:08

Date reviewed: 2014-12-14 23:58

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

Early fluid therapy is an important intervention in the acute pancreatitis. Lipinski et al. investigated the effects of crystalloid solutions (lactated Ringer and normal saline) on the outcome (severity, hospital stay and mortality) of the disease. No significant differences were found with respect to the outcome. Major points 1. Was there a bias to use lactated Ringer or normal solution in any of the patients? How was the type of solution decided? What was the fluid therapy like after 72 h? 2. IAP/APA guidelines recommend the administration of 2500-4000 ml of Ringer lactate in the first 24 hours. The authors gave 1000 ml of lactated Ringer or normal saline AND 1000-1500 ml 5% glucose AND 500-1000 ml multi-electrolyte solution. This actually adds up to the recommended dose, however it is a bit misleading to say in some parts of the paper (e.g. in the abstract and in the results) that "The volumes of fluid administered during the initial 72-hour period of hospitalization were similar among the patients from both 1-RL and 2-NS groups (mean, 3,400 vs. 3,000 mL, respectively)". This gives an impression that the patients were only treated with lactated Ringer or normal saline. 3. The source of your solutions needs to be identified. 4. I think that the first part of the results

(demographic data including table 1 and etiology) actually belong to the "Patients and methods" section. It seems to me that there is marked difference in etiologies (especially with respect to the percentage of alcoholic and others) between the two groups. 5. Are there any laboratory values (like BUN, hematocrit, urine output) that you could include to compare the two groups? 6. The following statement is speculative as the authors have no experimental data to confirm that: "Our findings do not support the hypothesis that RL administered in the early phase of AP sufficiently restores microvascular perfusion." Minor points 1. Page numbers are missing. 2. I do not quite understand why you actually need to have numbers 1 and 2 in the group names (1-RL, 2-NS). 3. The abstract is considered to be stand-alone. When using abbreviations later in the, they also have to be written out in full when first mentioning them (e.g. AP, NS, RL). Please make sure that you consequently use abbreviations throughout the manuscript (e.g. in many cases acute pancreatitis is not abbreviated). 4. The linguistics need minor revision. 5. It would be worth quoting the manuscript describing the revised Atlanta criteria. 6. On page 11, line 3, what do you mean by "risk" of enteral nutrition? 7. Please provide PubMed citation numbers (PMID) as requested by the journal. 8. Brief descriptions of Figures and tables are missing (only titles are provided). 9. Typos: Page 5, line 17: with instead of witch Page 6, line 11: ";;" is not needed after including Page 6, Table 1: 60.3% instead of 60,3%.

Re-review:

Thank you for sending me the replies. All of my comments have been addressed. Note that there is a typo in the list of key words. "Fuid" therapy is written instead of "Fluid" therapy. This should be corrected. Furthermore, I do not see the point of listing treatment in the key words, this is too general.

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 15714

Title: Fluid resuscitation in acute pancreatitis: normal saline or lactated Ringer's solution?

Reviewer's code: 03104186

Reviewer's country: Chile

Science editor: Jing Yu

Date sent for review: 2014-12-05 19:08

Date reviewed: 2015-01-18 23:46

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

The manuscript of Lipinski M et al : Fluid resuscitation in acute pancreatitis: normal saline or lactated Ringer's solution - does it really make a difference? was evaluated. Early fluid resuscitation is a cornerstone in the therapy of acute pancreatitis. The quantity and quality of fluid have been the subject of discussion in the last years. An excellent review was recently published in WJG (Aggarwal A, Manrai M, Kochhar R: Fluid resuscitation in acute pancreatitis, World J Gastroenterol 2014; 20(48): 18092-18103), analyzing doubts and recent evidences. Goal -directed fluid replacement seems to be the method of choice. Wu et al demonstrated in 2011 that Ringer lactate (RL) was superior to normal saline (NS) in reducing markedly PCR and SIRS (Wu BU, et al Clin Gastroenterol Hepatol 2011; 9: 710-717, cit 3. in manuscript). In their manuscript, Lipinski et al summarize their experiences and search for the difference in clinical outcome of their pancreatitis patients receiving comparable amounts of RL or NS as initial fluid resuscitation. Their study is retrospective, realized in one specialized clinical center. Choice of the fluid depended probably on the decision of the attending physician, they do not mention any clinical or other criteria. They did not find any difference in the

final clinical outcome of their patients regarding mortality and length of hospitalization. They conclude that RL failed to be superior to NS and "management of AP patients should probably be focused more on ensuring the sufficient fluid volume.... rather than on which type of fluid is used to achieve it" The question studied is of great importance. The study is retrospective, which limits the interpretation. The presentation of data is clear, there are no ethical problems in the analysis of treatment results without interfering with the choice of treatment. The title, abstract and different parts of manuscript are clear, provide enough information to interpretation of the result. I did not find short title and key-words. The sample size is sufficient, the statistical methods are adequate for a clinical study, the tables and figures are clear. The discussion is adequate in term of the results and recent literature, limitations are evaluated by the authors Questions and criticisms: 1. The proportion of severe acute pancreatitis (SAP) is about 13%, total number of SAP is low. The mortality of mild AP is near to zero and is usually low in moderate AP. In consequence, it must be very difficult to demonstrate benefits of any initial therapy in the final mortality of patients. While it would be of greatest clinical importance, lack of reduction in mortality is probably not the clinical parameter that permits exclude benefits of RL or any other intervention. 2. Considering the proportion of SAP and MAP, the mortality of the whole group seems to be high: only 13 SAP and 8 deaths. -Can the authors precise, how the fatal cases were initially classified? -Did these patients die in the early phase of AP or for late septic complications? Initial fluid resuscitation does not influence the late complications and the consequent mortality. -Fatal cases came probably from the SAP category, which would represent a 60% mortality in this group, which is very high. 3. They did not find differences in the proportion of necrosis between the two treatment groups. Thus, RL did not prevent more efficiently hypoperfusion, microcirculatory disturbances in the early hours of AP - this observation could be more related to the result of initial fluid resuscitation than the mortality. Minor criticism: 1. It is not clear in p.7. 1-st paragraph that the total volume of fluid is given for 72 hours or for 24 hours (more probable, but it must be clear) 2. The authors note that "predicted SAP was more frequent in RL group" if they used NGAL as predictor but not in case if they considered BISAP >3. However, none of these classification systems gave simila

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Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 15714

Title: Fluid resuscitation in acute pancreatitis: normal saline or lactated Ringer's solution?

Reviewer's code: 02458121

Reviewer's country: China

Science editor: Jing Yu

Date sent for review: 2014-12-05 19:08

Date reviewed: 2014-12-20 14:14

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
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		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

This study investigated the efficacy of lactated Ringer's solution in treating acute pancreatitis. The author found that the incidence of pancreatic necrosis and length of hospital stay were similar between the 1-RL and 2-NS groups. Although lactated Ringer's solution are theoretically against the process of pancreatic necrosis, the study failed to find any evidence that the administration of RL in the first days of AP leads to improved clinical outcomes. However, may major concern is that the baseline of the two groups are incomparable. Major comments 1. According to the 2012 Atlanta Criteria, there are 8 (20%) and 5 (7.9%) patients with moderate to severe acute pancreatitis in the 1-RL and the 2-NS groups respectively. There is a trend that the patients in the 1-RL group have a more severe course of disease ($p=0.072$). Additionally, more patients with alcoholic etiology were included in the 1-RL group (37.5% vs. 17.5%) and it has been confirmed that pancreatic necrosis are more likely to develop in the alcoholic pancreatitis. The increased severity of the 1-RL group may disturb the real therapeutic efficacy of lactated Ringer's solution. 2. What is the body weight of the patients? It is inappropriate to assess the efficacy of resuscitation without considering the body weight. The fluid

quantity per kilogram of body weight should be demonstrated. 3. The primary and secondary endpoints and the was not clearly pointed out. It seems that the pancreatic necrosis is the primary endpoint of the study. More secondary endpoints such as the incidence of infection, the duration of SIRS and organ failure should be considered. 4. When the severe acute pancreatitis were diagnosed? Before or after the intervention of lactated Ringer's solution? How many of the patients have developed persistent organ failure on admission? 5. The sample size may be inadequate to make a noninferiority comparison. Minor comments 1. Geriatrics patients should consider to be excluded because the higher incidence of comorbidity and the accordingly special resuscitate strategy. What is the incidence of comorbidity in the two groups? 2. What is the indication of using lactated Ringer's solution? Whether 1000ml of lactated Ringer's solution is adequate to achieve the target of modulating local pH or alleviating the acidosis in pancreatitis? 3. When the BISAP and the uNGAL is assessed?